



CITY OF MANCHESTER, NEW HAMPSHIRE

INDUSTRIAL PRETREATMENT PROGRAM ANNUAL REPORT

JUNE 1, 2019 THROUGH MAY 31, 2020

Prepared by:
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CITY OF MANCHESTER

Department of Public Works Environmental Protection Division

July 30, 2020

No. 20-20-MO

Justin Pimpare EPA New England 5 Post Office Square Suite 100 OEP 06-3 Boston, MA 02109-3912

Dear Mr. Pimpare,

On behalf of the City of Manchester, Environmental Protection Division (EPD), please find attached the 2019/2020 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2019 to May 31, 2020. Also, included is EPA's revised Compliance Status Work Sheet and the Town of Londonderry, New Hampshire 2019/2020 Annual Report.

In addition to the IPP activities, this report also details required sampling results for the Wastewater Treatment Plant's Influent, Effluent, and Sludge included in Section Five Appendices F, G, and H.

Furthermore, EPD would like to notify you that due to the COVID-19 pandemic, sampling and inspections were not completed for three months from March-May. However, these were completed after May 31, 2020 required timeline and results are included in this report. Moving forward, EPD plans to reschedule some of those activities earlier in the period to minimize future disruptions.

If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley Pretreatment Supervisor

Copy / Enclosure:

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CITY OF MANCHESTER

Department of Public Works Environmental Protection Division

July 30, 2020

No. 20-21-MO

Alexis Rastorguyeff, PE, SE III NHDES, Industrial Pretreatment Supervisor Wastewater Engineering Bureau 29 Hazen Drive, PO Box 95 Concord, NH 03302-0095

Dear Mr. Rastorguyeff,

On behalf of the City of Manchester, Environmental Protection Division (EPD), please find attached the 2019/2020 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2019 to May 31, 2020. Also, included is EPA's revised Compliance Status Work Sheet and the Town of Londonderry, New Hampshire 2019/2020 Annual Report.

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If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley Pretreatment Supervisor

Copy / Enclosure:

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Frederick J. McNeill, P.E., Chief Engineer

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EPA Region 1-Annual Pretreatment Report Summary Sheet June 1, 2019 to May 31, 2020

POTW Name:	City of Manchester, NH.	Environmental Protection Division (EPD)	
NPDES Permit #	. NH0100447		
Pretreatment Rep	ort Period Start Date:	June 1, 2019	
Pretreatment Rep	oort Period End Date:	May 31, 2020	
# of Significant In	ndustrial Users (SIUs):	15	
# of SIUs Withou	at Control Mechanisms:	0	
# of SIUs not Ins	pected:	0	
# of SIUs not San	mpled:	0	
_	ificant Noncompliance eatment Standards:	1	
# of SIUs in SNC Requirements:	Swith Reporting	1	
# of SIUs in SNC Compliance Sche	with Pretreatment edule:	0	
# of SIUs in SNC	Published in Newspaper:	0	
# of SIUs with Co	ompliance Schedules:	0	
# of Violation No	otices Issued to SIUs:	0	
# of Administrati	ve Orders Issued to SIUs:	0	
# of Civil Suits Fi	iled Against SIUs:	0	
# of Criminal Sui	ts Filed Against SIUs:	0	
# of Categorical I	ndustrial Users (CIUs):	4	
# of CIUs in SNC	2.	0	

Penalties

Total Dollar Amount of Penalties Collected

\$ 0

of IUs from which Penalties have been collected:

Local Limits

Date of Most Recent Technical Evaluation of Local Limits:

9/25/2015- Part of NPDES Permit Review Process

Date of Most Recent Adoption of Technically Based Local Limits:

August 5, 1997

Local Limits

Below is listed the maximum concentrations of chemicals allowed in the effluent discharge of any Manchester industry, commercial, business or residential establishment. Design Plant Flow 34 MGD

Pollutant / Limit (mg/l)

MAHL (lb/day)

•	Copp	er - 4	.55	mg/1
---	------	--------	-----	------

- Cyanide (total) 2.86 mg/l
- Lead 0.94 mg/l
- Mercury 0.023 mg/l
- Silver 0.90 mg/l
- Zinc 10.42 mg/l

- 1,290.26 lb/day 810.98 lb/day
- 266.55 lb/day
 - 6.52 lb/day
- 255.20 lb/day
- 2,954.69 lb/day

Screening Levels

Below is a list of acceptable maximum concentrations for certain chemicals. If one of these levels is exceeded by any industry, commercial establishment, business or residential unit then the situation causing the excess contaminant will be reviewed by EPD's monitoring staff. A permit will be issued that reflects the negotiated allowable discharge concentration for that particular parameter. Certain current permits have limits that are above these screening limits, but other safeguards are written into these specific individual permits to offset the increased pollutant discharge.

•	Benzene - 0.13 mg/l	- 36.86 lb/day
•	BOD - 350 mg/l	- 99,246.00 lb/day
•	Carbon Disulfide - 0.06 mg/l	- 17.01 lb/day
•	Chlorine - 1,500 mg/l	- 425,340.00 lb/day
•	Chloroform - 0.41 mg/l	- 116.26 lb/day
•	1,2 Dicholorethylene - 0.28 mg/l	- 79.40 lb/day
•	Sulfide - 1.0 mg/l	- 283.56 lb/day
•	Sulfate - 150 mg/l	- 42,534.00 lb/day
•	Sulfate - 1,500 mg/l (for type II concrete structures)	- 425,340.00 lb/day
•	Sulfite - 280 mg/l	- 79,396.80 lb/day
•	Suspended Solids - 350 mg/l	- 99,246.00 lb/day
•	Tetrachloroethylene - 0.53 mg/l	- 150.28 lb/day
•	1,1,1 trichloroethane - 1.55 mg/l	- 439.52 lb/day
•	Trichloroethene - 0.71 mg/l	- 201.33 lb/day
•	Oil & Grease - 100 mg/l (Petroleum or mineral origin, Method 1664 HEM/SGT)	- 28,356.00 lb/day
•	Oil & Grease - 350 mg/l (Animal & vegetable origin, Method 1664 HEM)	- 99,246.00 lb/day

Information Required By EPA

Section One

An updated list of all industrial users by category, as set forth in 40 CFR 403.8(f)(2)(i), indicating compliance or noncompliance with the following:

Part 1 - 1 Compliance with Baseline Monitoring Requirements and 90-Day Compliance Reports for Newly Promulgated Industries.

There were no 90-day Compliance Reports required during the monitoring period of June 1, 2019 through May 31, 2020. However, The City of Manchester, Environmental Protection Division (EPD) does require all Class I Industries that are renewing their discharge permits to submit a sampling report including several more additional parameters to be tested with their permit application.

Included at the end of this section is *Appendix A*, which includes a worksheet that lists all Class I Industrial Users (CIUs / SIUs). The worksheet includes the following: permitted average flows, category, and type of pretreatment and permit expiration date. Also included is *Appendix B* which lists the Class II and *Appendix C* which lists the Class III Industrial Users.

Part 1 - 2 Compliance Status Reporting Requirements for Newly Promulgated Industries.

All Industries that are subject to monitoring requirements are up to date with their responsibilities. EPD issued no new permit(s) for the Significant Industrial User Classification I (SIU's) during the reporting period of June 1, 2019 through May 31, 2020.

Part 1 - 3 Periodic (Semi-Annual) Monitoring Reporting Requirements.

The Class I listing at the end of Section One *Appendix D* is the EPD Industrial Inspection & Sampling Worksheet which tracks and verifies compliance. All the Class I CIUs / SIUs are listed on this sheet. The list contains the name and category of each industry, permit number, and the permit expiration date. The names and dates are summarized on Page 4, Part 2-3, Summary of Compliance and Enforcement Activities for Compliance Schedules Issued.

Part 1 - 4 Compliance with Categorical Standards.

There was one industry that violated their categorical limits for the reporting period of June 1, 2019 through May 31, 2020. Due to COVID-19 pandemic, Sterling Laundry Permit No. 1004 have temporary closed their operations on March 2020 and did not conduct their self-monitoring requirements. All other sampling reports are documented in the City's LINKO database and noted in *Appendix D*.

Part 1 - 5 Compliance with Local Limits

The City is content to state that there were no compliance issues with Local Limits during the reporting period of June 1, 2019 through May 31, 2020. As noted in Part 1-4 and Section Three, there was one industry that temporary closed its operation on March 2020, Sterling Laundry No. 1004 did not conduct their second required sampling event from December 2019 - May 2020.

APPENDIX - A

Class I / Significant Industrial Users

June 1, 2019 - May 31, 2020	1, 2020		Class I / Significant Industrial	it Industria	al Users			
Type of	Facility Name	Permit	Location	Avg. Flow	CFR	Company	Pretreatment	Permit
Business		No.		GPD		Representative		Expires
Cleaning Services								
1)	Cintas Corporation	1065	324 Taylor Street	38,500	SIU	Robert Hippert		4/30/2025
2)	Cintas Corporation	1066	324 Taylor Street	13,700	SIU	Robert Hippert	DAF	4/30/2025
3)	E&R Cleaners	1068	80 Ross Ave	70,600	SIU	Dave Ciripompa		8/31/2020
4)	Sterling Laundry	1004	39 Beech Street	95,000	SIU	Glen Stevens	And the second second	1/31/2022
Metal Finisher								
5)	Jewell Instrument	1024	850 Perimeter RD	3,700	433	Patty Konstantopoulos	pH Adjustment	11/30/2020
Plastic Production								
6)	NYCOA	1015	333 Sundial Ave	285,000	414	Sabre Strout	Settling Tank	5/31/2022
Semi-Conductor								
7)	XMA	1040	7 Perimeter Road	560	469	Stephen Traski	pH Adjustment	3/30/2022
Textile Manufacturing								
8)	Velcro USA	1019	95 Sundial Ave	80,100	SIU	Jerrery Slark	pH Adjustment	11/30/2020
9)	General Cable	1007	345 McGregor St.	23,700	SIU	Sara Janik		1/31/2025
Hospital								
10)	Elliot Hospital	1041	1 Elliot Way	69,400	SIU	Brad Smith		5/31/2022
11)	Catholic Memorial	1107	100 McGregor St	68,900	SIU	Brian Ramsey		5/31/2022
12)	Veterans Medical Center	1018	718 Smyth St.	45,000	SIU	Amanda Furtado		5/31/2022
Un-Classified								
13)	Manchester Landfill	1102	Front Street	100,000	SIU	City of Manchester		2/28/2022
Specialty Industry								Walk dan to la
14)	Lyophilization (LSNE)	1005	1 Sundial Street	114,000	SIU	Greg Stevenson		8/30/2020
15)	Freudenberg-NOK	1006	50 Ammon Dr.	8,600	428	Kevin Smith	Calfran/pH	11/30/2020
e.								
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IPP Monitoring

APPENDIX - B Class II Industrial Users

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14)	13)	12)	11)	10)	9)	8)	7)	6)	5)	4)	3)	2)	1)	
Summit Packaging Systems Inc.	Symmetry Medical Inc. Polyvac	Kyzen Corporation	NH Plastics (315 Bouchard)	NH Plastics (1 Bouchard)	Elliot at Rivers Edge	New England Document Systems	H&O Dental	Budd Foods	Blake's Manchester Creamery	Chuckles	Western Foods	CRYO Industries	Hitachi Cable America Inc.	Facility Name
2047	2046	2044	2043	2042	2041	2020	2017	2016	2015	2013	2005	2001	2000	Permit No.
400 Gay Street	253 Abby Road	540 N. Commercial St.	315 Bouchard Street	One Bouchard Street	185 Queen City Ave.	780 E. Industrial Park Drive	1050 N. Perimeter Road	431 Somerville Street	46 Milford Street	11925 South Willow Street	299 Pepsi Road	11124 South Willow Street	900 Holt Avenue	Location
2,300	1,900	475	1,600	1,000	7,000	850	250	10,000	2,000	2,500	4,000	1,000	3,000	Avg. Flow GPD
Chris Gallo	Ernie Fuller	Mike Doucette	Ralph Tremblay	Harold Young	Kristen Petrin-Doucet	Nick Brattan	Michelle Maradiaga	Fredrick Hayes Jr.	Richard Wolstencroft	Chuck Frank	Dave Martin	Kelcie O'Conner	Dave Murray	Company Representative
Mfg. Aerosol valves	Mfg. Medical trays	Solutions for Circuit Ind.	Plastic Moldings	Plastic Moldings	Kristen Petrin-Doucet Patient Care/Lab-Sterilization	Store Microfiche	Mfg. of False Teeth	Mfg. of Frozen Pies	Mfg. of Ice Cream	Mfg. of Soaps	Food bakery	Cryogenic Equipment	Plastic wrap wire cable	Description of Facility
7/31/2020	11/30/2024	7/31/2020	5/31/2024	5/31/2024	8/31/2021	11/30/2022	5/31/2024	11/30/2022	5/31/2024	3/31/2023	3/31/2024	2/28/2024	11/30/2024	Permit Expires

APPENDIX - C

IPP Monitoring

Class III Industrial Users

32 Tex	7	31 PSI	30 Eve	29 Eve	28 Eve	27 Lib	26 Cer	25 Cra	24 Ad:	23 U-I	22 PM	21 Au	20 Fra	19 Ma	18 Ste	17 Qu	16 Qu	15 Qu	14 R &	13 Bre	12 Sig	11 Bes	10 BA	9 Sec	8 M.J	7 Ent	6 Sta	5 Kn	4 USPS	3 Gra	2 Pe _l	1 Th		June 1, 2019 -
77.	Texas Instruments	PSNH 780 N.Commercial St.	Eversource 1580 Elm Street	Eversource 80 West Pennacook	Eversource 73 West Brook St.	Liberty Trucks	Certified Maintenance Ser	Crawford Vogel & Wenzel	Admix	U-Haul	PMC Wire & Cable	AutoFair Ford	Frank's Signs	Manchester Armory	Steralon	Quirk Works - Porter St	Quirk 1100 S. Willow St.	Quirk 1250 S. Willow St.	R & L Carriers	Brenntag Lubricants	Signature Flight Support	Best Qualified Cleaning Inc.	BAE Oasis	Secondwind	M.L. Halle	Enterprise Holdings	Stanley Mitsubishi	Knoettner	3PS	Granite State Manufacturing	Pepsi Cola	The Doctor's Office	Facility Name	2017 - IVIAY 31, 2020
3057	3053	3051	3042	3048	3047	3039	3043	3037	3033	3031	3029	3025	3023	3022	3021	3020	3019	3018	3017	3016	3015	3013	3012	3011	3009	3008	3007	3005	3004	3003	3002	3001	Permit No. 1	
8/1/24	5/31/22	7/31/23	2/28/25	2/28/25	2/28/25	10/31/20	11/30/23	6/30/20	8/1/24	8/1/24	6/30/24	8/1/24	4/30/24	4/30/21	7/31/25	11/30/23	7/31/25	11/30/23	2/28/24	2/28/24	11/30/23	Closed	6/30/22	7/31/20	7/31/20	2/28/20	7/31/25	5/31/24	5/31/24	8/31/20	1/31/24	7/31/25	Permit No. Permit Expires	
					Speci				57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34		TIT SCRI
					Special / Temporary Discharge Permit				FedEx Ground Package System	Prestige Auto Body Inc.	Kalwall Corp 1111 Candia	CVS Pharmacy (271 Mammoth)	Conway Express	IRA Toyota	Keller Products	Kalwall Corp Pine Street	State Motors Car Wash	Bonneville & Son Inc.	Merrimack Street Volvo	Merrimack Street Volvo	AutoFair Hyundai	Quirk Parts Warehouse	AutoFair Honda	Manchester Subaru	Team Nissan	Holloway Cars of Man.	Walgreens 227 S. Main St.	Servpro of Man/Derry	Starks Brewery	A-1 Steam Cleaning	Soil-Away Salem, NH	Henry's Collision Center	Facility Name	I IIIdustriai Osers
									3123	3122	3120	3113	3112	3109	3105	3104	3102	3097	3095	3094	3093	3092	3091	3090	3089	3083	3077	3070	3066	3065	3063	3061	Permit No.	
									9/30/22	9/30/22	3/31/23	7/31/24	7/31/24	10/31/20	7/31/20	7/31/20	7/31/25	11/30/24	7/31/25	7/31/25	7/31/25	5/31/21	7/31/25	7/31/25	7/31/24	7/31/25	11/30/23	3/31/24	2/28/23	1/31/24	7/31/24	6/30/23	Permit No. Permit Expires	

APPENDIX - D

IPP Monitoring

Class I/Significant Industrial Users D Industrial Inspections & Sampling Work

EPD Industrial Inspections & Sampling Worksheet

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		SIU	SIU	SIU	SIU	CIU 469	SIU	CIU 414	CIU 433	SIU	CIU 428	SIU	SIU	SIU	SIU	SIU		Classification	EPA
		1004	1007	1107	1018	1040	1019	1015	1024	1102	1006	1041	1068	1066	1065	1005		No.	Permit
		Sterling Laundry	General Cable	Catholic Medical	VA Medical Center	XMA Corporation	Velcro	NYCOA	Jewell	Front St. Landfill	Freudenberg-NOK	Elliot Hospital	E & R Laundry	Cintas Corporation	Cintas Corporation	Lyophilization-LSNE		Name	Facility
		1/31/2022	1/31/2025	5/31/2022	1/31/2022	2/28/2022	11/30/2022	5/31/2022	11/30/2020	2/28/2022	11/30/2020	5/31/2022	8/31/2020	4/30/2025	4/30/2025	8/31/2020		Expires	Permit
		Covid -19	6/17/2020	12/30/2019	6/12/2020	6/15/2020	6/23/2020	6/24/2020	6/11/2020	Not Required	6/12/2020	6/25/2020	6/10/2020	6/17/2020	6/17/2020	6/16/2020	City Required	Inspection	EPD
		Covid -19	7/2/2020	5/19/2020	5/19/2020	3/12/2020	3/12/2020	3/5/2020	3/12/2020	9/20/2019	3/5/2020	5/29/2020	5/19/2020	5/26/2020	5/22/2020	3/12/2020	City Required	Sampling	EPD
		10/23/2019	11/25/2019	9/24/2019	9/12/2019	10/15/2019	6/25/2019	11/14/2019	8/29/2019	Not Required	9/6/2019	10/31/2019	10/3/2019	7/10/2019	7/10/2019	11/12/2019	Ind. Required	Self-Mon. Rpt. Flow Rpt.	July - Dec (19)
		12/4/2019	12/18/2019	12/6/2019	10/4/2019	11/15/2019	12/4/2019	12/5/2019	12/12/2019	Not Required	12/12/2019	12/10/2019	12/13/2019	12/10/2019	12/10/2019	12/2/2019	Ind. Required Ind. Required		July - Dec (19)
MANUAL PROPERTY OF THE PROPERT		Covid -19	6/27/2020	6/12/2020	5/7/2020	5/8/2020	6/12/2020	6/9/2020	6/11/2020	3/5/2020	6/12/2020	6/8/2020	6/8/2020	6/8/2020	6/8/2020	6/1/2020	Ind. Required	Self-Mon. Rpt.	July - Dec (19) July - Dec (19) Jan - June (20) Jan - June (20)
		Covid -19	6/27/2020	6/12/2020	5/7/2020	5/8/2020	6/12/2020	6/9/2020	6/11/2020	Not Required	6/12/2020	6/8/2020	6/8/2020	6/8/2020	6/8/2020	6/1/2020	Ind. Required	Flow Rpt.	Jan - June (20)

Town of Bedford

No permit activity

Town of Londonderry

See 2019-2020 IPP Annual Report

Town of Goffstown

No permit activity

Notes:

- 1. Front Street is the City of Manchester's Landfill. The IPP staff maintains the permit and sampling activities.
- 2. N/D = No Discharge
- 3. Sterling Laundry closed its buisness in March 2020 due to COVID-19

Information Required By EPA

Section Two

Summary of Compliance and Enforcement Activities during the preceding year, including the number of:

Part 2 - 1 Significant industrial users inspected by POTW (include inspection dates for each industrial user)

The City of Manchester, EPD IPP inspections are summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. Due to COVID-19 pandemic, the Class I inspections were delayed but were able to be performed between June 1, 2019 through June 31, 2020. These inspections are noted on *Appendix D*. EPD also completed the Industrial Class II and Class III permit renewals for this monitoring period. EPD's enforcement tracking sheet is summarized on the Enforcement Response Worksheet *Appendix E* at the end of Section Three.

Part 2 - 2 Summary of significant industrial users sampled by the POTW.

The City of Manchester, EPD Industrial sampling is summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I Industries sampling activities were performed from June 1, 2019 through May 31, 2020.

Below are the City's sampling activities that will continue throughout the upcoming reporting year:

- 1. The Town of Londonderry is still monitoring the collection system quarterly for excess organic loading and sulfides generated due to the degredation of the high strength waste in the Londonderry sewer system. EPD will continue to monitor Londonderry wastestream for silver, copper, mercury, lead, zinc, selenium, aluminum and total phosphorous. EPD is continuing to collect data to determine excessive loadings to the treatment plant.
- 2. EPD has implemented extensive treatment plant effluent sampling as required by the current NPDES Permit NH0100447. The facility is sampling on a monthly basis for copper, lead and Total Phosphorous from the final effluent. On May 2019, EPD added Total Nitrogen and Ammonia-N to the sampling. EPD has also started a sampling protocol for per-and poly fluoroalkyl substances (PFAS) including 16 compounds. Presently, EPD is sampling for the influent & effluent, dewatered sludge, ash lagoon solids, septage and the City landfill leachate for these PFAS compounds.
- 3. In the past, EPD has had ongoing issues with copper, silver, zinc, and mercury discharges from contributing towns (Bedford, Londonderry, and Goffstown). The sampling activities that were conducted this reporting period indicated that none of those towns exceeded their allowable discharge limits for the parameters sampled.

EPD will continue to monitor the contributing towns for the metals listed above and continue to monitor for aluminum and Total Phosphorous to determine whether or not they are contributing any excessive loadings to the treatment plant.

Part 2 - 3 Summaries of Compliance and Enforcement Activities for Compliance Schedules Issued.

There were no enforcement activities implemented for compliance schedules for the fifteen (15) CAT/SIU industries that are required to be permitted, sampled and inspected.

Listed below are the compliance schedules that the City of Manchester. EPD issued for the Class I Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2020.

- 1. Cintas Corporation Permit No. 1065 Effective Date 5/1/2020
- 2. Cintas Corporation Permit No. 1066 Effective Date 5/1/2020
- 3. General Cable Permit No. 1007 Effective Date 2/1/2020

Listed below are the compliance schedules that the City of Manchester, EPD issued for the Class II Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2019.

- 1. Hitachi Cable America Inc. Permit No. 2000 Effective Date 12-1-19
- 2. Symmetry Medical Manufacturing Inc. DBA Tecomet. Permit No. 2046 Effective Date 12/1/2020

Listed below are the compliance schedules that the City of Manchester, EPD issued for the Class III Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2020.

- 1. A-1 Steam Cleaning Permit No. 3065 Effective Date 2/1/2019
- 2. Frank's Signs Inc. Permit No. 3123 Effective Date 5/1/2019
- 3. Knoettner Dental Laboratory No. 3005 Effective Date 6/1/2019
- 4. Marmon Aerospace and Defense Permit No. 3029 Effective Date 7/1/2019
- 5. Con-way Freight Permit No. 3112 Effective Date 8/1/2019
- 6. CVS (Mammoth Road) Permit No. 3113 Effective Date 8/1/2019
- 7. Eversource (1580 Elm Street) Permit No. 3042 Effective Date 3/1/2020
- 8. Eversource (73 W. Brook Street) Permit No. 3047 Effective Date 3/1/2020
- 9. Eversource (W. Pennacook Street) Permit No. 3048 Effective Date 3/1/2020
- 10. Medin Technologies Inc. Permit No. 3021 Effective Date 4/1/2020

Part 2 - 4 Summaries of Compliance and Enforcement Activities for Written Notices of Violation Issued.

The City of Manchester, EPD, Industrial Enforcement Activities are summarized on the Enforcement Worksheet *Appendix E* at the end of Section Three. The City of Manchester, EPD did not issue any Written Notices of Violations during this reporting period.

Part 2 - 5 Summary of Compliance and Enforcement Activities Involving Administrative Orders Issued.

The City of Manchester, EPD did not issue any Administrative Orders during this reporting period.

Part 2 - 6 Summary of Compliance and Enforcement Activities Involving Civil or Criminal Suits Filed.

The City of Manchester, EPD did not file any Civil or Criminal Suits during this reporting period.

Part 2-7 Summary of Compliance and Enforcement Activities Involving Penalties Obtained.

The City of Manchester, EPD did not issue or collect any penalties to any permitted industries during this reporting period.

Information Required By EPA

Section Three

List of Significantly Violating Industries Requiring Publication.

In review of this year's inspections, self-monitoring reports and submission of periodic compliance reporting it was determined that all but one Class I industry completed their reporting and monitoring criteria.

Due to COVID-19 Sterling Laundry Permit No. 1004 has temporarily closed back in March 2020 and the City did not conduct its annual inspection or received their required semi-annual self-monitoring report for the reporting period from December 2019 through May 2020.

The City of Manchester, EPD has determined not to issue a Notice of Violation (NOV) to Sterling Laundry for not conducting their reporting / sampling requirements during this monitoring period because of the pandemic. The City will continue to coordinate with Sterling's management on any progress and monitor any reopening of their operations. When and if they begin their operations, EPD will require Sterling to sample and submit their monitoring requirements.

APPENDIX - E Enforcement Response Log

IPP Monitoring

	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO I		NAME AND ADDRESS OF THE PARTY O	Control of the Contro	FI, SERVESON
					Facility Name
					Permit No.
					Description of Notice of Violation
					Type of Action Taken from Control Authority
					Date Issued
					Date Due
					Date Received
				No Notices of Violations were issued from June 1, 2019 through May 31, 2020.	Final Resolutions of the NOV Issued

Information Required By EPA

Section Four

A Narrative Description of Program Effectiveness Including Present and Proposed Changes to the Program

Part 4 - 1 Effectiveness and Changes in Program.

The City of Manchester (EPD) operates a 34-MGD secondary activated sludge plant. The major components of the operation are grit removal, primary clarification, aeration, secondary settling and clarification, chlorination and dechlorination. Sludge is burned onsite through a fluidized-bed incinerator.

The City of Manchester has had an approved Industrial Pretreatment Program since 1980 that oversees three classifications of industrial users. The Class I are the CAT/SIU users. The Class II are industries that have certain permitted limitations. The Class III are industries that had have either a silvery recovery unit or oil water separator. The City considers the Class II and III non-SIU even thou they do have a potential to upset the treatment facility. All permitted industries are evaluated and permits are renewed every 5 years.

EPD has initiated the recently issued §441.40 Pretreatment Standards for new sources (PSNS) for Dental Amalgam Separator Rule. Any new source subject to this part must comply with the requirements of §441.30(a) and (b) and the reporting and recordkeeping requirements of §441.50.

EPD has prepared a draft Fats, Oil and Grease (FOG) program that will be implemented under the Phase III CMOM program which is anticipated for later this year. Before implementing this program, the City will submit the documentations to the State of NH IPP Coordinator and EPA's Region I-Pretreatment Coordinator for their comments prior to implementation.

The City is in the process of updating IPP webpage on the City of Manchester's web site which will include all permitted industries, IPP sampling programs, IPP permit information, City Septic Policy and procedures. The webpage will also provide additional links for the IPP annual reports. This is scheduled to be on line by October 2020.

Part 4 - 2 Narrative Description of Program Staffing.

The IPP Pretreatment program is administered by Christopher Crowley. The daily activity of the IPP program include all sampling activity for the permitted industries and Intermunicipal activities which include City meter readings and sewer bills. The IPP also supports a variety of facility sampling which supports several monitoring programs.

On February 2020, the City filled two positions by hiring a new Environmental Permits Program Coordinator and a new Engineer Technician II. The City also created a new civil engineering position to manage Phase II of our CSO Program.

The City of Manchester, (EPD) Monitoring Department is divided into four (4) programs: CSO, CMOM, Stormwater and the Industrial Pretreatment Program (IPP). The CSO Program Manager oversees the four programs.

Part 4 - 3 Narrative Description of Funding and Resources

The City of Manchester's (EPD) operating budget is supported by sewer user revenues. Revenues are collected from sewer users through a combination of sewer use charges. All sewer users in the City of Manchester pay sewer user fees based on water consumption. The three towns serviced by the EPD are assessed fees based on their measured sewer flows and loadings into the Manchester Sewer System.

Part 4 - 4 Narrative Description of the Sewer Use Ordinance

The EPA and the Mayor and Board of Aldermen adopted the present Sewer Use Ordinance in 1997. The Ordinance is effective and adequate in addressing the requirements of Part 403 of the Federal Pretreatment Program requirements.

The few minor changes since adoption have been submitted with the updated IPP sent to EPA on May 11, 2007. On August 22, 2007 EPA responded to our Streamlining Rule modifications to the latest version of the Sewer Ordinance. This was adopted by Board of Mayor and Alderman on November 18, 2014.

Presently there are no new adoptions planned in the near future for EPA or the State of New Hampshire Department of Environmental Services to review.

Information Required By EPA

Section Five Summary of Analytical Data.

This section includes the following data:

- 1. Summary of POTW Annual Influent Monitoring Results for the period of June 2019 through May 2020 compared to threshold inhibition concentrations. *See Appendix F*
- 2. Summary of POTW Annual Effluent Monitoring Results for the period of June 2019 through May 2020 compared to threshold inhibition concentrations. *See Appendix G*
- 3. Summary of Sludge Priority Pollutant Analysis Data for the period of June 2019 through May 2020 $See\ Appendix\ H$
- 4. Executive Summary of the Analytical Data is attached in the form of tables. The toxicity data are from summary sheets submitted by the contracted laboratory.

SDG: 15699 September 23, 2019 – September 27,2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic whole effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (September 23,25, and 27,2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes
		Chro	onic Toxicit	y Evaluation		
Species	Exposure	C-NOEC	IC-25	Permit Limit	Effluent Meets	Assay Meets
				(C-NOEC)	Permit Limit	Protocol Limits
Ceriodaphnia dubia	6 Days	50 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

SDG: 15716 October 8 - October 15, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (October 7,9 and 11, 2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100 %	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100 %	100 %	Yes	Yes
		Chro	nic Toxicit	y Evaluation	•	
Species	Exposure	C-NOEC	IC-25	Permit Limit	Effluent Meets	Assay Meets
				(C-NOEC)	Permit Limit	Protocol Limits
Ceriodaphnia dubia	6 Days	100 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

SDG: 15782 February 11 - February 18, 2020

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (February 10,12 and 14, 2020). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit	Effluent Meets	Assay Meets	
				(LC-50)	Permit Limit	Protocol Limits	
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes	
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes	
	Chronic Toxicity Evaluation						
Species	Exposure	C-NOEC	IC-25	Permit Limit	Effluent Meets	Assay Meets	
	_			(C-NOEC)	Permit Limit	Protocol Limits	
Ceriodaphnia dubia	6 Days	50 %	99.6%	8.5 %	Yes	Yes	
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes	

SDG: 15840 May 12 – May 19, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (May 11, 13 and 15, 2020). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit	Effluent Meets	Assay Meets
				(LC-50)	Permit Limit	Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes
Chronic Toxicity Evaluation						
Species	Exposure	C-NOEC	IC-25	Permit Limit	Effluent Meets	Assay Meets
				(C-NOEC)	Permit Limit	Protocol Limits
Ceriodaphnia dubia	6 Days	100 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

APPENDIX - F

IPP MONITORING

INFLUENT SAMPLING RESULTS

	A MARKAN TATAK TATAK TAKAT MARKAT TAKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKAT MARKA				1 E KON KOE	The sense le vice testes
					(p-cresol) 9.8	3 and 4 methylphenol
				ne	added 625 1,2 diphenylhydrazine	added 625
					See Note below	ORGANICS
					3.80	T. Phosphorus
					Γ	Oil & Grease W/SGT
					6.70	Oil & Grease
Yes	0.06146	0.0052	0.26004	0.022	< 0.02	Cyanide
No	0.38060	0.0322	0.418428	0.0354	0.12	Zinc
						Vanadium
Yes					<0.001	Thallium
Yes			0.0037824	0.00032	<0.001	Silver
						Selenium
Yes					< 0.05	Phenolic (T)
Yes	0.57563	0.0487	5.17716	0.438	0.0024	Nickel
						Molybdenum
Yes	0.000142	0.000012	0.02411	0.00204	0.0000705	Mercury
						Magnesium
Yes	0.0065010	0.00055	0.16548	0.014	0.0026	Lead
						Iron
						Fluoride
						Hardness
No	0.04137	0.0035	0.054372	0.0046	0.042	Copper
Yes	0.67374	0.057	2.08032	0.176	0.0013	Chromium
						Calcium
Yes	0.0044916	0.00038	0.00969	0.00082	<0.001	Cadmium
						Beryllium
						Barium
Yes	2.24580	0.19	4.2552	0.36	0.0021	Arsenic
					0.32	Aluminum
						Antimony
Yes or No	c) Concentration mg/l	Concentration mg/l (*	Concentration mg/l	Concentration mg/l (*) Concentration mg/l Concentration mg/l (*) Concentration mg/l	Concentration mg/l	Listed Parameter
	Chronic	Chronic	Acute	Acute	210378	Lab I.D.
Status	for 7Q10	Criteria	for 7Q10	Criteria	5/19/2020	Date of Analysis
Compliance	Crite	State H2O Quality	Criteria Corrected	State H2O Quality	INFLUENT INFORMATION	INFLUENT II

The sample was tested for 624-625

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

^{*}The Merrimack River 7Q10 is at 412 MGD

June 1, 2019 - May 31, 2020 City of Manchester, NH Annual IPP Report

EFFULENT SAMPLING RESULTS APPENDIX - G

IPP Monitoring

				le	1,2 diphenylhydrazine	added 625
					See Note below	ORGANICS
					2.5	T. Phosphorus
						Oil & Grease W/SGT
					^	Oil & Grease
Yes	0.06146	0.0052	0.26004	0.022	< 0.02	Cyanide
No	0.38060	0.0322	0.418428	0.0354	0.042	Zinc
		140				Vanadium
Yes					< 0.001	Thallium
Yes			0.0037824	0.00032	< 0.001	Silver
						Selenium
Yes					< 0.05	Phenolic (T)
Yes	0.57563	0.0487	5.17716	0.438	0.0023	Nickel
						Molybdenum
Yes	0.000142	0.000012	0.02411	0.00204	0.0000131	Mercury
						Magnesium
Yes	0.0065010	0.00055	0.16548	0.014	<0.001	Lead
						Iron
						Fluoride
						Hardness
No	0.04137	0.0035	0.054372	0.0046	0.0092	Copper
Yes	0.67374	0.057	2.08032	0.176	< 0.001	Chromium
						Calcium
Yes	0.0044916	0.00038	0.00969	0.00082	< 0.001	Cadmium
						Beryllium
						Barium
Yes	2.24580	0.19	4.2552	0.36	0.0017	Arsenic
					< 0.05	Aluminum
						Antimony
Yes or No) Concentration mg/l	Concentration mg/l (*) Concentration mg/l Concentration mg/l (*) Concentration mg/l) Concentration mg/l	Concentration mg/l (*	Concentration mg/l	Listed Parameter
	Chronic	Chronic	Acute	Acute	195779	Lab I.D.
Status	for 7Q10	Criteria	for 7Q10	Criteria	5/28/2019	Date of Analysis
Compliance	Criteria Corrected	State H2O Quality	Criteria Corrected	State H2O Quality	EFFULENT INFORMATION	EFFULENT I

The sample was tested for 624-625

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

^{*}The Merrimack River 7Q10 is at 412 MGD

Sludge Sampling Results

Date Received	6/24/2019	7/24/2019		_	TCLP Limits		503 Rags	State MII (1)	Ct-4c
Lab ID Number	197035	198304	199406	201130	Criteria	Permit 5/1/15	Sub B (1)	State NH (1) Criteria	State of
Listed Parameter	ug/g	ug/g	ug/g	ug/g		. mg/kg dry wt.	ma/ka dry wt	Criteria	Compliance
Aluminum	4500.00	3700.00	5200.00	3400.00	mg/kg dry wt	. mg/kg ury wt.	mg/kg ary wt	. mg/kg ary wt.	mg/kg ary wt
Antimony	2.30	1.80	2.00	2.00					
Arsenic	5.20	6.10	7.90	4.90	100	8,573	41	22	¥7
Barium	260.00	280.00	290.00	230.00	2,000	0,575	41	32	Yes
Beryllium	<0.7	<0.5	<0.5	<0.5	2,000				
Boron	<7	6.70	6.30	5.20					
Cadmium	1.70	1.50	1.70	1.20	20	43,416	39	14	V
Chromium	20.00	16.00	20.00	15.00	100	1,423,398	1,200	1,000	Yes
Copper	260.00	300.00	330.00	270.00	100	1,423,396	1,500	1,500	Yes Yes
Iron	10000.00	9500.00	9400.00	8500.00			1,500	1,500	Y es
Lead	35.00	29.00	39.00	25.00	100	262,781	300	300	Yes
Mercury	0.44	0.45	0.54	0.53	4	202,761	17	10	Yes
Molybdenum	5.50	6.40	7.60	6.50	7		75	35	Yes
Nickel	13.00	9.60	12.00	9.30		213,643	420	200	res
Selenium	1.70	4.00	5.50	5.00	20	213,043	100	28	Voc
Silver	3.00	1.90	2.50	5.40	100		100	40	Yes Yes
Thallium	< 0.7	<0.5	<0.5	<0.5	100				res
Vanadium	9.20	8.70	9.40	8.40					
Zinc	580.00	750.00	750.00	680.00			2,800	2 500	Vo-
% Solids	23.60%	24.20%	24.40%	23.80%			4,000	2,500	Yes
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	47.3	48.1	48.0	49.8					
Total Organic Carbon	17.5	70.1	70.0	77.0					
% CaCO3 -eq.	24000	27000	28000	24000					
pH (Soil)	21000	27000	20000	21000					
Date of Analysis	6/8/2020	7/30/2019	8/27/2019	10/2/2019				The state of the s	
Lab ID Number	197035	198304	199406	201130					
Concentration ug/g dr		mg/Kg	mg/Kg	mg/Kg					
acetone	62.00	300.00	160.00	92.00	Opening the second of the second of the second	CALENDARIO DE CONTRACTO DE CALENDA			
2-Butanone (MEK)	32.00	130.00	45.00	39.00					
1,2-dichloroethane				57.00					
1,1-dichloroethene									
1,4-dichlorobenzene							>		
benzene									
carbon tetrachloride									
Toluene	1.40	44.00	6.60	2.30					-
chloroform									-
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creas	sol)								
3-4-methylphenol(p-o-c)	310.00								
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene	e								
phenathrene									
methylene chloride									
Fluoranthane									
Pyrene									
Chysene									
benzo(b)fluranthene									
phenol									
	to new stocky most and a file of the street or one		SECOND CONTRACTOR SOCIETY AND SOCIETY AND	Control Acquire Control Control			distant Arbay Services	CONTRACTOR OF THE PARTY OF THE	

June 1, 2019 - May 31, 2020

Sludge Sampling Results

Date Received	10/21/2019	11/27/2019		_	TCLP Limits		503 Rags	State NH (1)	State of
Lab ID Number	202127	204061	204913	205580	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g		mg/kg dry wt.			
Aluminum	5900.00	3800.00	3500.00	2900.00	mg/kg ur y wt	. mg/kg ury wt.	mg/kg ury wt	. mg/kg ur y wt.	mg/kg dry wt
Antimony	3.10	2.80	3300.00	1.70					
Arsenic	8.10	5.70	4.30	4.00	100	0 572	41	22	N 7
The Property of the Control of the C	270.00	240.00	4.30		100	8,573	41	32	Yes
Barium			-0.5	190.00	2,000				
Beryllium	< 0.5	<0.5	< 0.5	0.21					
Boron	7.00	6.20	2.10	<0.5		10.11			
Cadmium	2.00	1.60	2.10	7600.00	20.0	43,416	39	14	Yes
Chromium	26.00	21.00	13.00	12.00	100	1,423,398	1,200	1,000	Yes
Copper	380.00	330.00	230.00	160.00			1,500	1,500	Yes
Iron	11000.00	8900.00	7300.00	6400.00					
Lead	57.00	26.00	25.00	22.00	100	262,781	300	300	Yes
Mercury	0.76	0.42	0.40	0.50	4.0		17	10	Yes
Molybdenum	8.10	6.30		3.50			75	35	Yes
Nickel	17.00	12.00	9.30	7.20		213,643	420	200	
Selenium	4.00	2.50	3.10	2.50	20.0		100	28	Yes
Silver	4.80	3.80		1.40	100				Yes
Thallium	< 0.5	< 0.5		< 0.5					
Vanadium	15.00	9.70		11.00					
Zinc	810.00	640.00	470.00	370.00			2,800	2,500	Yes
% Solids	28.30%	25.70%		25.00%			,	_,,	
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	39.7	44.2	1100011	50.1					
Total Organic Carbon		11.2		30.1					
% CaCO3 -eq.	38000	35000		29000					
pH (Soil)	30000	33000		27000					
Date of Analysis	10/29/2019	12/3/2019	12/6/2019	1/10/2020					
Lab ID Number	202127	204061	204405	205580					
Concentration ug/g (mg/Kg	mg/Kg	mg/Kg	mg/Kg					
acetone	300.00	71.00	mg/Kg	120.00					
	170.00	110.00	900.00	37.00					
2-Butanone (MEK)	170.00	110.00	900.00	37.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene)								
benzene									
carbon tetrachloride									
Toluene	6.00	7.90							
chloroform									
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-cre	easol)								
3-4-methylphenol(p-o	130.00	2900.00		270.00					
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexachloro-1,3-butadi	ene								
hexachloroethane	CHE								
nitrobenzene									
The control of the co									
pentachlorophenol									
Pryidine									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
phenol				201-1072-127-127-127-127-127-127-127-127-127-1					

Sludge Sampling Results

Date Received	2/21/2020	3/13/2020	4/28/2020	5/22/2020	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	207056	207858	209527	210682	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g		.mg/kg dry wt.			mg/kg dry w
Aluminum	4800.00	3200.00	3600.00	4800.00	ggj	inging ary war	ing/ing dr j ii t	ing/ng dry wt.	ing/kg tily w
Antimony	1.90	2.00	2.00	3.10					
Arsenic	5.40	3.90	4.50	6.00	100	8,573	41	32	Yes
Barium	200.00	240.00	240.00	230.00	2,000	0,575	41	32	1 68
Beryllium	<0.5	<0.5	<0.5	< 0.5	2,000				
Boron	<5	<5	<50	<50					
Cadmium	3.40	2.70	2.60	2.30	20.0	43,416	39	1.4	X 7
Chromium	19.00	18.00	16.00	20.00	100			14	Yes
Copper	140.00	210.00	220.00	290.00	100	1,423,398	1,200	1,000	Yes
Iron	8200.00	7200.00	7400.00	9800.00			1,500	1,500	Yes
Lead	25.00	25.00	29.00	49.00	100	2/2 701	200	200	*7
Mercury	0.95	0.48	0.31	0.56	100	262,781	300	300	Yes
					4.0		17	10	Yes
Molybdenum	4.10	3.90	3.90	5.10		212 (12	75	35	Yes
Nickel	11.00	9.40	9.80	12.00	20.0	213,643	420	200	
Selenium	2.80	2.80	3.40	4.80	20.0		100	28	Yes
Silver	1.70	2.70	5.00	3.40	100				Yes
Thallium	< 0.5	<0.5	< 0.5	< 0.5					
Vanadium	15.00	9.50	7.80	12.00					
Zinc	610.00	450.00	500.00	700.00			2,800	2,500	Yes
% Solids	26.20%	23.40%	26.60%	25.60%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	44.3	49.7	48.3	45.6					
Total Organic Carbon									
% CaCO3 -eq.	26000	24000	26000	29000					
pH (Soil)									
Date of Analysis	2/24/2020	3/16/2020	4/29/2020	5/27/2020					
Lab ID Number	207056	207858	209527	210682					
Concentration ug/g dr		mg/Kg	mg/Kg	mg/Kg					
acetone	900.00	57.00	220.00			The second of the second of the second			
2-Butanone (MEK)	300.00	23.00	62.00	15.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,1-dichloroethene									
1,1-dichloroethene 1,4-dichlorobenzene									
1,1-dichloroethene 1,4-dichlorobenzene benzene	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene	18.00	48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride		48.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c)		48.00 180.00	2.50	13.00					
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene	sol)								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexochloro-1,3-butadiene	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachloroethane	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexochloro-1,3-butadien hexachloroethane nitrobenzene	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexachloroethane nitrobenzene pentachlorophenol	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexachloroethane nitrobenzene pentachlorophenol Pryidine	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexochloro-1,3-butadien hexachloroethane nitrobenzene pentachlorophenol Pryidine 2,4,5-trichlorophenol	sol) 140.00								
1,1-dichloroethene 1,4-dichlorobenzene benzene carbon tetrachloride Toluene chloroform methyl ethyl ketone tetrachloroethene trichloroethene vinyl chloride 2-methylphenol (m-creas 3-4-methylphenol(p-o-c) 1,4 dichlorobenzene o-cresol m-cresol p-cresol 2,4-dinitrotoluene hexachlorobenzene hexachloroethane nitrobenzene pentachlorophenol Pryidine	sol) 140.00								

Information Required By EPA

Section Six

Description of Interference and Pass-Through

There was no industrial interference with the treatment plant process that caused any interference or pass-through during the June 1, 2019 through May 31, 2020 reporting period. The aeration system is fully operational and thus, the system is more flexible in handling high loadings and low dissolved oxygen conditions. EPD will continue monitor the conditions and adjust the performance of the plant's performance.

Information Required By EPA

Section Seven

Investigation of Interference and Pass-Through

The City of Manchester, EPD has taken a proactive approach at sampling the POTW influent and effluent for nutrients, metals and total phosphorus and will continue to do so. EPD has taken the initiative to sample permitted industrial discharges that could potentially contribute to the metals and total phosphorus loadings at the treatment plant. EPD has determined that the Manchester Water Works and Granite Ridge Energy of New Hampshire are two industries that might be contributing to high aluminum levels in the influent during dry weather conditions.

EPD will continue to test for aluminum, mercury and total phosphorus from the contributing towns (Bedford, Goffstown and Londonderry) during the quarterly sampling activities.

The Town of Bedford quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
7/12/19	0.200 mg/l	0.00005 mg/l	7.10 mg/l
1018/19	0.370 mg/l	0.00006 mg/l	7.50 mg/l
1/10/20	0.230 mg/l	0.00049 mg/l	6.60 mg/l
5/21/20	0.210 mg/l	0.00009 mg/l	5.30 mg/l

<u>The Town of Goffstown</u> quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
7/12/19	0.530 mg/l	0.00003 mg/l	5.20 mg/l
1018/19	0.660 mg/l	0.00003 mg/l	8.80 mg/l
1/10/20	0.220 mg/l	0.00003 mg/l	3.70 mg/l
5/21/20	0.170 mg/l	0.00002 mg/l	4.60 mg/l

The Town of Londonderry quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The addit	ional sampling of:	Aluminum	Mercury	Total Phosphorus
	7/12/19	0.380 mg/l	0.00002 mg/l	9.00 mg/l
	1018/19	1.70 mg/l	0.00004 mg/l	9.20 mg/l
	1/10/20	0.660 mg/l	0.00002 mg/l	7.00 mg/l
	5/21/20	0.270 mg/l	0.00002 mg/l	12.00 mg/l

EPD will continue to monitor the influent and effluent for those parameters to ensure compliance with effluent requirements.

Information Required By EPA

Section Eight

Monitoring for Interference and Pass-Through

The City of Manchester, EPD has an active sampling and monitoring program for interference and pass-through. Below are the tests performed for the parameters listed through the reporting period.

- 1. Influent and Effluent monitoring for metals, total phosphorous, cyanide, volatile and semi-volatile organics (priority pollutant scan).
- 2. Quarterly toxicity testing as outlined within the NPDES Permit.
- 3. Monthly Sludge analysis for metals. Testing includes the required total metals analysis (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, and EPD added Aluminum), but also included some TCLP and organics analysis when sludge must be landfilled during incinerator shutdown.
- 4. Semi-Annual Ash monitoring for all priority pollutants.
- 5. Annual Grits & Screening monitoring for all priority pollutants.
- 6. Increased Class II Industrial sampling during permit renewals above what is required in the approved IPP.
- 7. Continued Effluent monitoring on a monthly basis. Since 2015, EPD has been monitoring the effluent twice a month for grab samples for Copper, Lead and Total Phosphorous due to the fact that those parameters are a requirement in our current NPDES permit. In 2020 T. Nitrogen, Nitrite and Ammonia were added.
- 8. In 2019, EPD began sampling on a monthly basis for PFAS (16 compounds) for the influent, effluent, landfill leachate, septage, sludge and ash solids.
- 9. Sampling of Intermunicipal Agreement communities (Bedford, Goffstown and Londonderry) includes the following monitoring of Local Limits for metals of concern (Ag, Al, Cu, Pb, Hg, Zn) and Total Phosphorous. Due to EPA Interim Mercury Control Plan, EPD has been sampling the Towns on a monthly basis for mercury as well.
- 10. The Town of Londonderry discharges is monitored for excessive metals, organics, sulfides and other inorganics.
- 11. The City shall continue to comply with the Interim Mercury Control Plan instituted by EPA under the air emissions requirements. Below are control measures to assist in the investigation of mercury in the POTW incinerator emissions:

- a. Manchester currently maintains a sludge-monitoring program that satisfies State and Federal requirements. This program includes evaluation of new industrial customers prior to receiving their wastewater, ongoing periodic and routine monitoring of customer wastewater and monthly sampling of sludge feed to the Fluidized Bed Incinerator (FBI) as required by 40 CFR Part 503. All of the monitoring and sampling components of this program include mercury in their analyses.
- b. The IPP will continue to evaluate (a) the self-monitoring reports submitted by all facilities discharging to the WWTP under a municipal Industrial Discharge Permit (each hereinafter an Industrial Permittee), and (b) the results of annual Industrial Permittee wastewater sampling performed by Manchester, to determine the facilities that have the highest mercury content of wastewater by weight discharged to the WWTP for the past three years (Industrial Permittee wastewater is sampled at least three times per year, twice per year for the self-monitoring reports and once per year by Manchester).
- c. Collect wastewater samples from the existing metering stations at the three towns that have Intermunicipal Agreements with Manchester (Bedford, Goffstown, and Londonderry) on a monthly basis, rather than the previous quarterly basis. This is to evaluate the mercury content by weight in the wastewater discharged from each Town to the WWTP. These results will determine whether a town has exceeded its limit for mercury.
- d. In the event that the increased wastewater sampling identifies a mercury exceedance by a Town, Manchester will send an outreach letter to the Town's Department of Public Works asking for their assistance in reducing mercury in its wastewater discharge and scheduled a meeting with the Town to discuss how best to address the exceedance.

The IPP has scheduled this year an increase in dental office inspections under the Dental Amalgam Program from every two years to every year. Currently, EPD has not completed all the inspections due to the COVID-19 shut down of the dentistry businesses. As of August 2020, EPD is to start another round of inspections and anticipates all inspections will be completed by October 2020.

Information Required By EPA

Section Nine Reduction Efforts for SNC SIUs

The City of Manchester, EPD continues to be diligent in notifying each industry of potential late sampling and reporting requirements as outlined in their permits. The industrial sampling, both City unannounced and industrial self-monitoring, indicate that all permitted Class I CIUs/SIUs are discharging within their categorical and/or headworks loading concentrations.

EPD is continuing to take a proactive approach in investigating potential new industries. The IPP conducts an initial walk through, gathers flow information (water consumption) through with the City's billing department; logs them into a database; and gathers potential hazardous substances usage to evaluate if a permit is warranted.

EPD has a proactive approach with all types of spill investigations. The IPP works closely with the City's Board of Health Department and the City Sewer Department with the guidance with of EPD Engineering Department to track down any potential illicit dischargers.

EPD joined the City of Manchester's Local Emergency Planning Committee (LEPC) to collect information on any industries that might require a discharge permit. Unfortunately, due to continued logistical issues there has not been any recent activity.

Information Required By EPA

Section Ten Local Limits Adoption

The local limits are current and technically based. The EPA accepted the limits with notification to the City of Manchester on March 18, 1997. The City formerly adopted the limits within the Sewer Use Ordinance on August 5, 1997.

The City of Manchester's NPDES permit became effective May 1, 2015. A requirement was to submit, within 180 days of the effective date of the permit November 8, 2015, a "Reassessment of Technically Based Local Limits."

On October 26, 2015 EPD submitted to EPA its Reassessment of the Technically Based Local Limits. The City believes that the information confirms that Manchester's present Local Limits Headwork's Allocation is sound, conservative and protective of the wastewater treatment operations. The new discharge permit requires monthly monitoring of effluent copper with an average monthly limit of 24 ug/l. We have a chronic toxicity-reporting requirement of >8.5% for NOEC and an acute toxicity requirement of an LC50 of >100%.

EPD is anticipating another review of the technically based local limits during the upcoming monitoring year when the new NPDES permit will be reviewed and issued to the City.